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# frontiers

managing public lands for multiple use

Issue 49 July/ August 1994

# Stalking the olive-sided flycatcher

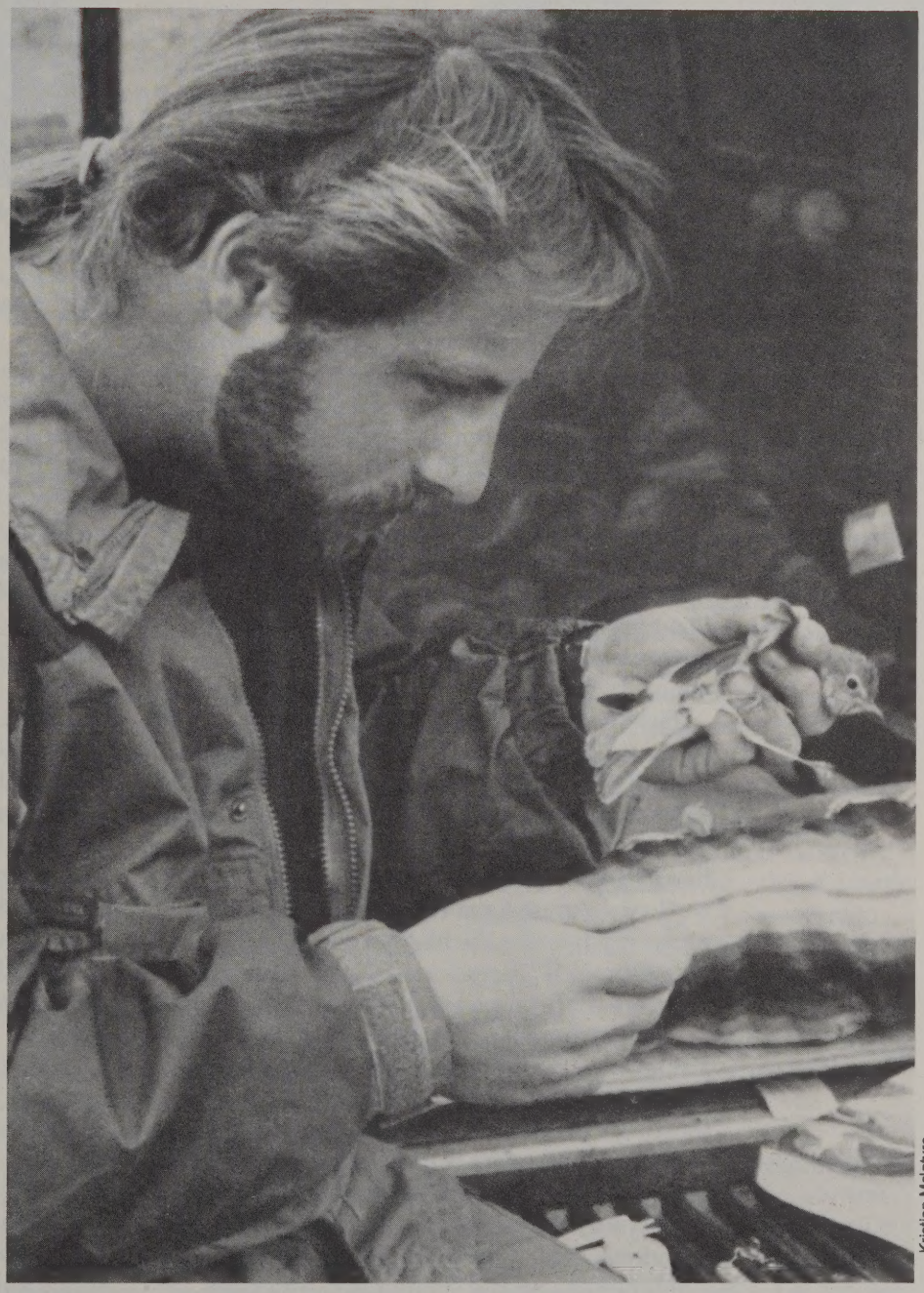
INSIDE

Russian firefighters swap firefighting techniques with Alaska Fire Service

New boundaries drawn for Tangle Lakes Archaeological District

Far to the north— State and Federal agencies team up to inventory Arctic minerals

Squirrel River may join National Wild and Scenic Rivers System



Kristian McIntyre

Kristian McIntyre and Eric Kelchlin spent time early this spring setting up mist nets in the Sourdough Creek Campground, catching and recording data on any birds that came by, as they waited for the olive-sided flycatchers to return to the area. Here, Eric Kelchlin gathers information and bands a water thrush.

u.s. department of the interior • bureau of land management

# Flames leap over language barrier

## AFS and Russian firefighters compare fire fighting techniques through exchange program

Russian and Alaskan smokejumpers speak different languages, but they have no trouble communicating about wildfire.

Three firefighters from Russia worked with Alaska firefighters this summer in an exchange program with the Alaska Fire Service. Two were smokejumpers from Russia's central and southern Siberia regions, who jumped and fought fires with Alaska smokejumpers.

"They fit right in," said Bruce Ford, an Alaska smokejumper who speaks Russian and has been active in the exchange program. "Some of the techniques and equipment are a little different, but they jump and fight fires on the ground the same way we do."

Igor Karmazhin, 29, from the Primorskaya Fire Center in Vladivostok, and Andrei Kievskiy, 33, from the Amurskaya Fire Center in Blagoveschensk, made nearly a dozen jumps with Alaska smokejumpers. Each worked on about six fires.

Firefighters in Russia work year-round, with a 68-day vacation period in the winter. The size of their operation dwarfs Alaska's. They have 3,500 smokejumpers, compared to 65 in Alaska and they manage an area of more than 2 billion acres, five times the size of Alaska.

"In the Amurskaya region, fire burns Siberian pine, which is like the black spruce here," Kievskiy said. "Farther south in Igor's region there are more commercial forests of pine."

Smokejumpers use an airplane called an AN-2, a single-engine biplane, which Ford said was very capable in the Bush. A squad is generally five or six people, compared to eight in Alaska.

They fly detection routes and jump when they see a fire. Like Alaskan firefighters, the Russian smokejumpers use shovels and backpack pumps to put out fires. They have no pulaski, the combination axe and scraper that American firefighters find so handy. They use pine boughs to beat out fires the same as Alaskan firefighters use spruce boughs to beat out fires.

Andy Williams

Two smokejumpers from Russia, Igor Karmazhin (left) and Andrei Kievskiy (right), stand with Bruce Ford, an Alaskan smokejumper who served as an interpreter.

Karmazhin said operations are more decentralized in Russia. "We have a lot of regional bases that cover their areas. Each base has about 18 people and an airplane."

While the two Russian smokejumpers were working on fires, the Russian deputy fire chief was reviewing AFS operations. Alexsander Pronin, 38, deputy chief of the Magadan Fire Center in Magadan, attended interagency briefings and reviewed aircraft operations, dispatch, fuel stations, contracting and other AFS functions.

Boris Khobta, chief of the Magadan Fire Center, also visited AFS facilities in July.

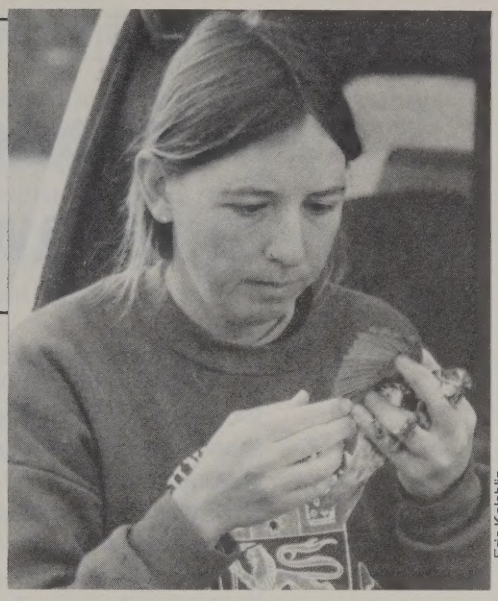
The visit is part of a continuing exchange program between AFS and the National Aerial Forest Fire Protection Service in Russia. In 1992, the director general of the Russian fire service, Nikolai Andreev, and four other top managers visited AFS facilities. Last year five AFS representatives visited firefighting facilities in the Russia.

Acting AFS Manager Marv Robertson said the next step in the exchange program could be for Alaska firefighters to spend a season working in Russia.

"We'll review the success of this year's exchange and work with the BLM State Director and people in Washington to continue it. We're sure that both countries can learn from each others' methods and techniques of fire management," he said.

—Andy Williams

# In search of the olive-sided flycatcher


Eric Kelchlin

Kris McIntyre collects data on a fox sparrow.

While boaters and anglers enjoy the Gulkana Wild River corridor this summer, the Alaska Department of Fish and Game and the Alaska Bird Observatory are conducting a study on an elusive bird known as the olive-sided flycatcher. Kristian McIntyre, Eric Kelchlin and Derek Sands did field work based out of the Bureau of Land Management's Sourdough Creek Campground on the Gulkana River.

"Very little is known about the bird," says John Wright, Alaska Department of Fish and Game Conservation and Education Wildlife Biologist.

The olive-sided flycatcher, a type of passerine, is considered a Neotropical migrant, wintering in the South American countries of Venezuela, Columbia, Ecuador and Peru. The birds sport dark brownish-olive sides and chest patches, divided by a white streak in the center of the breast, which resembles an unbuttoned jacket.

The Breeding Bird Survey (BBS) is a tool developed in 1966 to attempt to establish a trend index, rather than a total count, of bird populations. By the 1980s and '90s, BBS data indicated that certain Neotropical species are declining in the parts of the United States.

Often called "Partners in Flight," the Neotropical Migratory Bird Conservation Program seeks funding to support studies of Neotropical species. More than 35 Neotropical migratory bird species breed in Alaska and winter in the southern United States or along the Mexican border, while at least 30 others partially winter south of the border.

This summer the researchers hope to better define seasonal and daily patterns of singing to improve future census design, and to obtain basic information on habitat preferences and breeding biology of the birds.

US Fish and Wildlife Service biologist Terry Doyle, who works out of the Tetlin National Wildlife Refuge, has observed olive-sided flycatchers while performing Breeding Bird Surveys along the Richardson Highway (Sourdough route) for five years, and along the Tok Cutoff near Chistochina (Chistochina route) for four years.

"I've ended up with a yearly average of 9 flycatchers along the Sourdough route, and an average of 6 per year along the Chistochina route," recalls Doyle, "but these are averages. One year, I didn't get any along the Chistochina route, and one year I got as many as 14 on the Sourdough route."

By repeatedly covering the BBS routes, it may be possible to determine seasonal singing patterns. So, twice a week, beginning in mid-May, McIntyre, Kelchlin and Sands wake up before dawn to run the 25-mile Sourdough and Chistochina routes, pausing every half-mile to listen for the olive-sided flycatcher's spirited whistle: "quick-free-beer." They heard their first two birds on May 18.

"We tried to follow it—it was gone so quick! This may be tougher than we thought," says McIntyre.

The researchers believe that following a male in the spring will likely lead them to a female and, eventually, to a nest site, as most male passerines defend a territory in which the female nests. Once they learn the location of nests, they will monitor the hatching and fledging.

One tool they use is a mirror pole, which is just what it sounds like: a pole with a mirror attached to the end. "The hard way is to climb a tree," says Kelchlin, as he watches slender spruce trees swaying in the breeze.

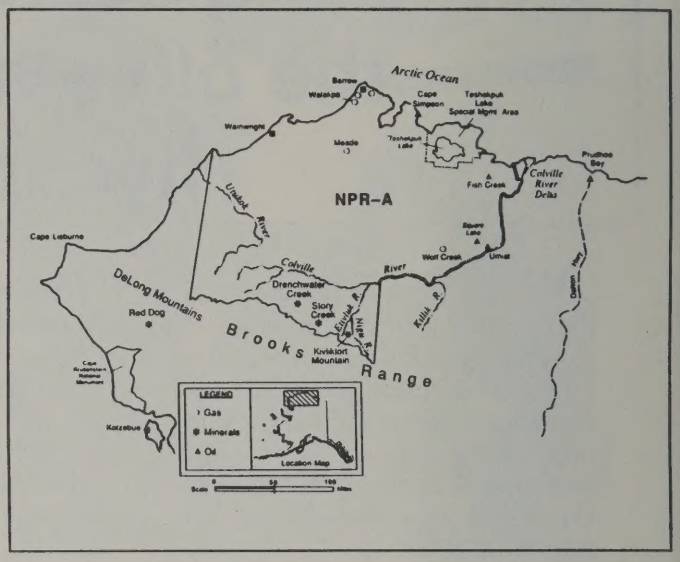
To capture the olive-sided flycatchers for banding and collection of data, McIntyre and Kelchlin set up a 12-meter "mist net" near a singing male. Supported by poles, the setup resembles a very short badminton net. Birds caught in the net are not hurt, nor do they struggle. They are gently removed, and measurements and observations recorded. Numbered USFWS aluminum bands are affixed to the legs for use in future research. Any olive-sided flycatchers caught also will be "color banded" with a unique combination of colored plastic bands. This allows the observers to identify individual birds from a distance, through binoculars or with a scope.

—KJ Mushovic

*The last of the olive-sided flycatcher babies fledged on July 12. The only nest the researchers could locate and monitor was 6 miles north of Sourdough Campground and had four babies. The first one tumbled out of the nest, so McIntyre was giving the fledglings a 75 per cent survival rate.—editor*

Interagency teamwork nets valuable minerals information in the Colville Mining District

# A close look at a faraway place




Between the Brooks Range and the Arctic Ocean in northern Alaska lies the National Petroleum Reserve, an isolated land with few roads, no trees and miles of flat, tundra-covered land. Here, the town of Barrow reigns as the northernmost community in the state, while the tiny villages of Wainwright and Atkasuk are home to Inupiat Eskimos who have lived their lives in this remote corner of the world.

Held as an oil reserve by the federal government since 1923, the NPR-A remains closed to exploration and extraction of hard-rock minerals. Located within the NPR-A are 16-million-plus acres of BLM-managed land in the Colville Mining District.

Why the interest in this land that has been sitting idle for longer than memory serves? The State and several Native corporations are keeping a close eye on what may be a storehouse of minerals hidden beneath the arctic tundra.

In 1991 the Bureau of Land Management initiated a joint-agency Memorandum of Understanding (MOU) with the Bureau of Mines (USBM), U.S. Geological Survey (USGS), and the State of Alaska Division of Geological and Geophysical Surveys (DGGS) to study known mineral occurrences and deposits in the district, and to locate and study previously unknown occurrences or deposits. A mineral occurrence is an exposure of naturally occurring mineral material, while a deposit is a larger concentration of one or more minerals that might be of economic value in the region. BLM will use the minerals inventory for its land and resource management plans.

Russ Hicks, a USBM geologist, samples phosphate-bearing shales on Lisburne Ridge in the National Petroleum Reserve Alaska.

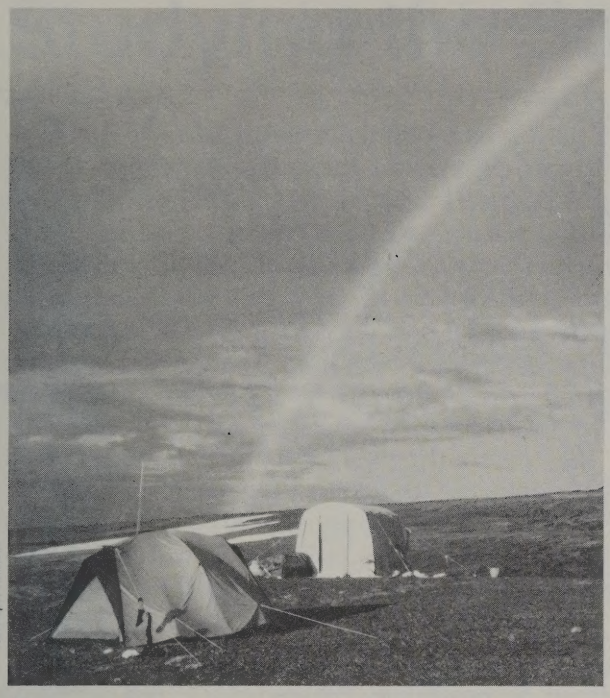
Under the MOU, the state and federal agencies spent the past three summers sharing logistical and technical support in a quest for minerals data. Investigative work focused on the north flank of the Brooks Range and the adjacent arctic foothills. Field parties worked out of base camps set up at three isolated airstrips left over from the petroleum exploration days of the 1970s.

A typical day in the field included traverses of ridges or stream valleys looking for anomalous mineral occurrences, and taking detailed notes on samples collected and bedrock geology. A helicopter would drop two people off at a the start of a traverse and later pick them up, sometimes 6 to 10 miles away.

At the end of a day, geologists from the different agencies wrote up their field notes, marked mineral sample locations on maps, and labeled sample bags. The samples were then sent out to be assayed, and the data compiled.

Digging for soil samples can be tough, says Joseph Kurtak, a geologist with the USBM. "You go down here about a foot, through the tundra cover, and 'bam!' You run into permafrost. There's a lot of permafrost out there." Permafrost is permanently frozen ground that occurs below the surface vegetation in Arctic climates.

The project yielded 1,699 rock, soil and stream silt samples. Age and biofacies information of the fossiliferous samples was provided by USGS paleontologists, while their geochemists did regional and follow-up stream sediment sampling. The USGS also conducted extensive geophysical surveys, and identified rocks and mapped all rock units. The State conducted regional geologic map-



Joseph Kurtak

**Home on the tundra—a geological spike camp near Drenchwater Creek.**

ping investigations, and USBM's work involved detailed studies of what was found.

USBM says the findings were beyond expectations. Thirty-eight mineral occurrences were discovered through the study, including zinc, lead, silver, barite, phosphate and copper.

USGS helped locate barite, lead and zinc occurrences. Barite is used to make drilling mud; its heavy weight displaces and flushes rock cuttings from oil well drill holes. Currently, barite used for drilling oil at Prudhoe Bay must be brought up from Nevada.

"We found phosphate," Kurtak says, "which is in big demand for fertilizer in Asian countries."

One site has captured the attention of the State and Native organizations. The Drenchwater deposit, located in the DeLong Mountains along the southern border of the NPR-A, could contain a mineral deposit similar to the Red Dog Mine, one of the world's largest zinc and lead mines. Several Native corporations and the State are keeping a close watch on what may turn up.

USBM is finishing the detailed study of the rock and mineral samples found, and will release a series of reports this fall.

Kurtak says that, "writing the final report is like stuffing all the information into the top of a giant funnel, and a little trickle comes out the bottom. It's a lot of work!"

Gil Mull, geologist for the DGGS, sums up the interagency teamwork: "It was a nice collaboration of agencies working toward a common goal."

—Janet Malone

Camping on the arctic tundra is no picnic in the park. The work sites provided some harsh reminders that Joseph Kurtak, US Bureau of Mines geologist, won't forget.

"There were incredible storms with over 50-plus mph winds and driving rains," says Kurtak.

"A surprise storm knocked down all the tents but one. There's no place to hide—nothing between you and the North Pole. Storms come in off the Arctic Ocean, and just roar over you!"

But seeing all the wildlife, Kurtak says, made up for some of the tougher realities of camp life.

"We saw a wolverine, musk oxen, wolves, dall sheep and a moose, believe it or not, that far north. We caught our dinner out of the creek—grayling—more than once. We were real fortunate to watch the Western Caribou Herd migration. The caribou have two migrations a year, westward and east. They were like a mass of ants—thousands moving across the tundra at a time. It was just amazing!

"We saw many grizzlies. Some bears visited the camps, apparently habituated to humans. They didn't cause any trouble—they just sniffed and walked away. I think it's because they haven't discovered humans to be a source of a free and easy chow-down."

Bureau of Land Management geologist Bill Diel, who worked near the Gates of the Arctic National Park, has different memories.

"It was my first time north of the Brooks Range. It's treeless—you can see for miles. The scenery is incredible! Surprisingly, there wasn't much wildlife—some caribou, just small groups, not huge herds. No bears."

Diel and Kurtak both suffered from one common Alaska scourge.

"There were a lot of mosquitoes," Diel says. "At lunch time, to avoid them we would find a pinnacle up high in the wind."

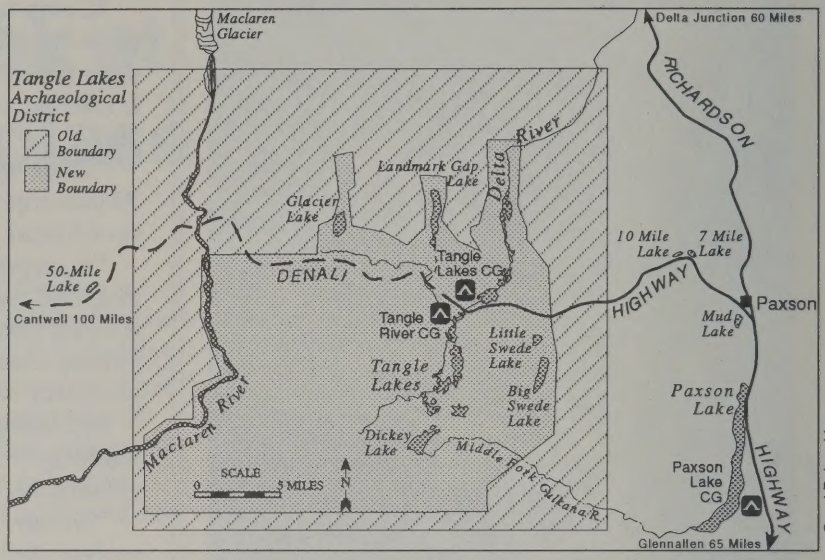
The challenge? Learning how to eat with a mosquito net on. The trick, Kurtak says, is to put your hand inside to take a bite and draw it back out before the mosquitoes get in.

*"We need to look at the quality of our scientific effort, see how we can improve it ... and how we can put together a more coordinated science effort that crosses jurisdictional lines."*

—Secretary of the Interior Bruce Babbitt

Tangle Lakes Archaeological District boundaries reviewed, reduced

# A new look at an ancient area




Off-road vehicle use within the National Register District continues to be restricted to only signed, designated trails between May 15 and October 15. The public is advised that this BLM administrative boundary change has no effect on the state Fish and Game's prohibition on the use of motorized vehicles for hunting purposes in the Clearwater Controlled Use Area. ADFG also requires prior written approval for the use of wheeled or tracked vehicles on the beds of specified anadromous fish bearing waters. Contact the nearest ADFG office for more information regarding these regulations.

Ten thousand years ago, people came to the Tangle Lakes area in the southern flanks of the Alaska Range to hunt, camp, and quarry and work stone. Today, travelers on the Denali Highway continue to flock to the area to hunt and camp, and to learn about ancient people.

The archaeological district represents one of the densest concentrations of prehistoric sites known anywhere in the North American subarctic. Recent efforts by BLM archaeologists will now allow less restricted use of some of this area, due to a change in the boundaries of the Tangle Lakes Archaeological District that shrinks the district to 226,600 acres—less than half its original size. The change means greater access for people who use the area for recreation.

BLM Glennallen District archaeologist Pat McCoy says the revised boundaries better reflect the known distribution of archaeological sites, and also enclose the unsurveyed areas of high archaeological potential. "The public has wanted less restrictive access to this area for many years," says McCoy, "and BLM is working on it."

In 1971, 460,000 acres were nominated for inclusion on the National Register of Historic Places by Dr. Frederick Hadleigh West, then a professor from the Alaska Methodist University (now Alaska Pacific University). At the time, the large acreage was considered necessary to provide a buffer zone for the identified significant sites, but beginning in the mid-1980s, the criteria under which National Register properties are designated has changed, and older properties like the Tangle Lakes Archaeological District will be reviewed by the newer standards.

Peter Bowers, a private archaeological consultant, was a field assistant of Dr. West's in 1974. Bowers went on to work part-time and seasonally for BLM, often in the Tangle Lakes Archaeological District. Through his work, Bowers became somewhat of a local authority on the District, and so was a logical choice to assist in deciding whether the boundary could be reduced.

Following several seasons of archaeological survey work to determine site locations, Bowers concluded that the significance of the district is in the types of sites represented, as well as the great number of sites within it. Individually, each site might not merit inclusion on the National Register of Historic Places; however, *as a group* they are quite significant.

"The Tangle Lakes District represents a truly internationally significant resource," says Bowers. "It includes not only some of the oldest archaeological sites south of the Alaska Range, but it has preserved ... evidence of the full range of activities carried out by prehistoric Native Americans."

The new boundaries of the District still include over 98% of all currently known sites, as well as all of the major glacial features which have shown high archaeological potential. Since the sites are not distributed randomly, but form patterns based on topographic setting, resource availability, landforms and vegetation, it is likely that any new sites would be found within the new boundaries.

Only nine known sites are excluded from the new boundaries. If any of the nine sites were to be affected by a BLM project, or if any additional sites were to be discovered outside of the new boundary, they would still have to be evaluated individually for nomination.

**All sites, regardless of location, are protected by law against the illegal, private collection of artifacts.**

"What will remain of this rich legacy in large part depends on how effectively the lands are managed today," says Bowers. "This doesn't necessarily require that lands be locked up. It just requires a common-sense approach to management, and an awareness of, appreciation of, and sensitivity for the area by all of the various user groups."

—KJ Mushovic

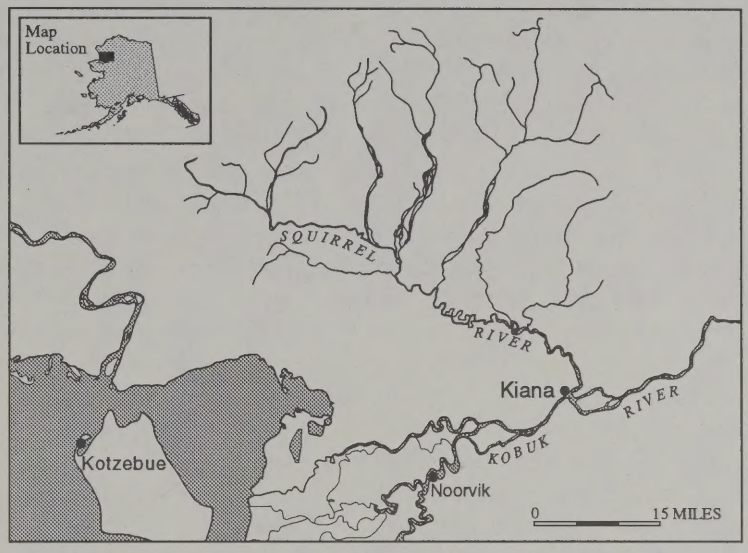
# Studying the Squirrel River

More than 20 people filled the small seating area in the laundromat that doubles as the city office building in the village of Kiana. They had come to discuss the Bureau of Land Management's plans to study the Squirrel River for possible inclusion in the National Wild and Scenic River System.

"The Squirrel River has provided for our needs for many generations," said Tommy Sheldon, an elder in the village of 435 on the north bank of the Kobuk River. "We don't want the river closed for following generations."

From its headwaters in the Baird Mountains, northeast of Kotzebue, the Squirrel River flows 95 miles to the Kobuk River just east of Kiana. The upper portion of the river was designated for study as a possible wild and scenic river by the Alaska National Interest Lands Conservation Act of 1980. ANILCA withdrew two miles on either side of the river corridor in the study area. BLM has since managed the land as though the Squirrel were a wild river, as required by the ANILCA withdrawals.

In 1985 the National Park Service prepared a draft environmental impact statement (EIS) recommending that the Squirrel River and its tributaries be designated a national wild river, but a final document was never approved at the secretarial level. BLM then assumed the responsibility of doing wild and scenic river studies on rivers under its management.




"BLM is doing the study to fulfill the obligations of ANILCA," said Helen Hankins, district manager for BLM's Kobuk District. "We are preparing an EIS to consider what changes might take place if the Squirrel River becomes part of the National Wild and Scenic River System, and what might happen if it does not. BLM will consider several alternatives for designation and one for non-designation, and will recommend the option it prefers."

"If Congress decides not to designate the Squirrel a wild and scenic river or takes no action," added Hankins," special protections for land along the river might end. BLM would continue to manage the land under the ecosystem management concept, and there would probably be few restrictions for local or non-local users."

Hankins and members of the Squirrel River study team visited Kiana and Kotzebue April 6-7 to discuss alternatives to be included in the draft EIS. Susan Will, natural resource specialist with the Kobuk District and leader of the study team, said the purpose of designating the Squirrel River, or any river, as part of the wild and scenic river system would be to preserve the river and lands along it. At the meeting, Will outlined the process that will be followed in preparing the EIS, and the options BLM is considering.

Anne Morkill, subsistence specialist for the Kobuk District, and Paul Boos, recreation planner in the BLM's state office in Anchorage, accompanied Will and Hankins.

Land along the river withdrawn by ANILCA for the study area would become available for transfer to the state, based on current state selections in the river corridor.

—Andy Williams

The National Wild and Scenic Rivers Act of 1968 defines three categories of rivers, and describes possible uses for each.

- National Wild Rivers are free of impoundments (dams or other structures that restrict flow). They are generally inaccessible except by trail, with essentially primitive watersheds or shorelines, and unpolluted water.
- National Scenic Rivers are free of impoundments, have largely undeveloped shorelines, but are accessible in places by roads.
- National Recreational Rivers are readily accessible by road or railroad, may have some development along their shorelines, and may have undergone some impoundment or diversion in the past. Both scenic and recreational rivers are open to mineral entry.

# frontier flashes

The BLM proposed to implement a law, the Omnibus Budget Reconciliation Act of 1993, which requires holders of **unpatented mining claims** on federal land to pay the federal government a $100 annual maintenance fee and a $25 location fee per claim.

The $25 location fee is a new fee, while the $100 maintenance fee is an extension of the $100 rental fee in effect since October 1992. The major difference between the old rental fee and the new maintenance fee is that the requirements for qualifying for the "small miner" exemption from the fee are less strict under the new law.

Under the maintenance fee requirements a small miner need only certify the performance of a qualifying assessment under the mining law. The requirement for a valid notice or plan of operations with the proper government agency is not included, nor are the previous surface disturbance and production or exploration requirements

The maintenance and location fees will expire in 1998, unless extended by Congress, and are intended to discourage nuisance mining claims and reduce unnecessary surface disturbance.

**Scott Billing is the new manager of the BLM's Alaska Fire Service.** Billing came to Alaska from Winnemucca, Nevada, where he was a BLM area manager since 1988. Billing's long career in fire dates back to his college days when he worked as a seasonal forestry technician for the US Forest Service.

The BLM Alaska Fire Service is responsible for fire management on all Department of Interior and Native corporation land, and most military land in Alaska. Under an interagency agreement, AFS provides fire protection for 173 million acres in the northern part of the state, and the Alaska Division of Forestry fights fires in the southern part.

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**Federal subsistence hunting permits for moose and caribou** are currently being issued by the Glennallen District Office to residents of Game Management Units 12 and 13. Federal subsistence caribou season opens August 10, and Federal subsistence moose season opens August 19.

During the 1993-4 subsistence seasons, the District staff issued 1,700 permits for caribou and 550 permits for moose. Harvest reports for the 1993-4 seasons indicate that 328 caribou and 51 moose were taken on unencumbered BLM-managed lands within Game Management Unit 13.

Copies of the 1994 Federal subsistence hunting regulations are available from the Federal Subsistence Board, US Fish and Wildlife Service, 1011 East Tudor Road, Anchorage.

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**The Alaska State Museum in Juneau is featuring an exhibit** entitled "Search for the Northwest Passage: A Bicentennial Exhibition on the Alaska Voyages of George Vancouver," through September 17.

Permanent museum exhibits consist of ethnographic material on each of the Alaska Native cultures: The Tlingit, Haida and Tsimsian Indians of Southeast Alaska; the Athabaskan Indians of Interior Alaska; the Eskimo peoples of the far northern and western regions of Alaska; and the Aleut people of the Aleutian Islands. Other sections of the Museum include Russian America history, Juneau gold mining history and a natural history section.

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**Chief, External Affairs: David Vickery**

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